Portland-Milwaukie LRT

Portland, Oregon

(November 2009)

The Tri-County Metropolitan Transportation District of Oregon (TriMet) proposes to construct a 7.3-mile, double-track light rail transit (LRT) extension of the existing Yellow Line from the downtown Portland transit mall across the Willamette River, to southeast Portland, the city of Milwaukie, and urbanized areas of Clackamas County. The project includes construction of a new multimodal bridge across the Willamette River (a 1.3-mile segment that will include joint operations for buses, light rail and streetcars), ten new stations, two 1,000-space structured park-n-ride facilities, expansion of an existing maintenance facility, and the acquisition of 21 Light Rail Vehicles (LRVs). The majority of the extension would be at grade (5.5 miles), with 1.8 miles below grade along an existing Union Pacific Railroad right-of-way.

The project will link downtown Portland with regional educational institutions, dense urban neighborhoods, and emerging growth areas in East Portland and Milwaukie. Service will operate at 7.5-minute peak period frequencies. The project is Phase II of a major transit investment strategy for the South Corridor. The South Corridor I-205/Portland Mall LRT represents Phase I.

The Willamette River separates most of the corridor from downtown Portland and the South Waterfront. The corridor's only highway (Highway 99E), which provides access to downtown Portland via the existing Ross Island, Hawthorne, Morrison, and Burnside bridges, is limited to two through-lanes in each direction for much of the segment between Milwaukie and central Portland, most of which is congested. The corridor's transit network is structured around five north/south and three east/west trunk bus lines with approximately 7,600 and 10,600 passenger trips across the Willamette River each weekday, respectively. All of the north-south trunk routes operate across the Hawthorne Bridge, which has slow operating speeds due to congestion, narrow clearances and frequent lift span openings. The east-west trunk routes cross the Ross Island Bridge, which has congested approaches. None of the existing river crossings provide easy access to key markets in the corridor such as the South Waterfront and the Oregon Museum of Science and Industry. The LRT extension, via the new multimodal bridge, would provide more direct access to key markets and provide faster and more reliable travel times than bus service.

Summary Description	
Proposed Project:	Light Rail Transit 7.3 Miles 10 Stations
Total Capital Cost ($YOE):	$1,471.76 Million (includes $257.1 million in finance charges)
Section 5309 New Starts Share ($YOE):	$735.86 Million (50.0%)
Annual Forecast Year Operating Cost:	$10.18 Million
Ridership Forecast (2030):	27,400 Average Weekday Boardings 10,200 Daily New Riders
Opening Year Ridership Forecast (2016):	22,000 Average Weekday Boardings
FY 2011 Local Financial Commitment Rating:	**Medium**
FY 2011 Project Justification Rating:	**Medium-High**
FY 2011 Overall Project Rating:	**Medium-High**

Project Development History and Current Status

TriMet included the Milwaukie LRT line in the North Corridor/South Corridor Draft Environmental Impact Statement (DEIS) that was published in 1998 and updated as the South Corridor supplemental DEIS in December 2002. The South Corridor was selected as the locally preferred alternative (LPA) in 2003. The LPA was reaffirmed in the Metro Council's (local metropolitan planning organization-MPO) long-range plan in May 2003 and again in July 2008. The LPA was included in the MPO's financially-constrained long-range plan in June 2007.

In April 2003, the Metro Council adopted a two-phased major transit investment strategy for the South Corridor. The Interstate 205/Portland Mall LRT line was selected as Phase I, followed by the Portland-Milwaukie LRT as Phase II. Phase I opened for revenue service in September 2009. Phase II would connect with Phase I along the Portland Mall.

FTA approved the Portland-Milwaukie LRT project into preliminary engineering in March 2009. The schedule assumes publication of a Final EIS in February 2010, a Record of Decision (ROD) in July 2010, and final design approval in late 2010.

There are several items related to the scope of the planned multimodal bridge across the Willamette River, including bridge location, design, environmental issues, navigational issues, transit operational issues, construction, and costs that must be resolved during preliminary engineering. In addition, the project has several freight railroad interfaces (Union-Pacific Railroad and Oregon Pacific Railroad) where the proposed LRT route crosses or parallels existing railroad facilities. These items could delay the completion of the Final EIS and ROD if not resolved in a timely manner, and could adversely impact the project's overall schedule and budget.

Project Justification Rating: Medium-High

The project justification rating is based on the weighted average of the ratings assigned to each of the following criteria: the cost-effectiveness criterion is weighted 20 percent; the transit supportive land use criterion is weighted 20 percent; the economic development criterion is weighted 20 percent; the mobility improvements criterion is weighted 20 percent; the environmental benefits criterion is weighted 10 percent; and the operating efficiencies criterion is weighted 10 percent.

Cost Effectiveness Rating: Medium

The cost effectiveness rating reflects the level of travel-time benefits (9,400 hours each weekday) relative to the project's capital and operating costs based upon a comparison to a baseline alternative.

Cost Effectiveness	
	New Start vs. Baseline
Cost per Hour of Transportation System User Benefit	$20.78*
Incremental Cost per Incremental Trip	$16.19

*****Indicates that measure is a component of Cost Effectiveness rating.

Transit-Supportive Land Use Rating: Medium

The land use rating reflects the population and employment densities within ½-mile of proposed station areas.

- Population density in proposed station areas averages 4,900 persons per square mile. Including LRT segments already completed or under construction, the proposed extension would provide a one-seat ride connecting 60,000 residents and 160,000 jobs.
- The majority of the corridor's downtown section is already built out at high densities and includes a pedestrian-friendly environment, a 200-foot grid street pattern, and wide sidewalks. The eastside station areas feature a mix of older medium-density single-family neighborhoods, pedestrian-friendly commercial development along several north-south streets (including some recent infill development), and a number of large industrial areas, some of which are directly adjacent to proposed station areas. Other auto-oriented uses, represented by a mix of industrial, warehouse, and commercial establishments, exists around two stations.

Economic Development Rating: High

The economic development rating is based upon the average of the ratings assigned to the subfactors below.

Transit-Supportive Plans and Policies: High

- Oregon's comprehensive planning system has been in place for more than 30 years. Land use laws play a major role in determining how cities and regions grow. Metro's Urban Growth Management Functional Plan requires that cities and counties define minimum densities for all residential zones, with typical policy targets of 45 to 60 persons per acre in transit station areas designated as growth centers. All of the jurisdictions within the corridor have adopted minimum densities (typically 80 percent of maximum allowed densities, consistent with policy targets).
- A number of area plans, neighborhood plans, and district plans explicitly incorporate the proposed Portland-Milwaukie LRT project as a central component of local areas' overall transportation and land use concepts. The proposed South Waterfront and Milwaukie stations serve designated local or regional centers, where a mix of land uses and transit-oriented development (TOD) are specified.
- Zoning in downtown Milwaukie allows maximum floor area ratios (FAR) of up to 4:1. Higher densities are allowed in the South Waterfront area. In Portland east of the Willamette River, maximum permitted residential densities along the main commercial corridors range from 40 to 125 dwelling units per acre. In the surrounding neighborhoods permitted residential densities range from approximately nine to 17 units per acre. Commercial development is permitted at FARs up to 3:1.
- Oregon has adopted tax abatement legislation that allows local jurisdictions to adopt ordinances that provide tax abatement for transit-supportive developments, and Portland has done this. Three of the proposed stations are in Urban Renewal Areas, entitling developers to additional financing tools such as tax-increment financing.

Performance and Impacts of Policies: High

- The region's urban growth boundary has helped protect open space from rapid, low-density development, while new LRT stations combined with supportive land use policies have spurred a variety of infill projects and new TODs. TriMet estimates that LRT in the region has spurred over $6 billion in investment along transit corridors. The Metro Council's TOD Program has assisted 29 development projects currently under construction or completed.
- Although the project will connect a number of residential areas that are already built out, it will also pass directly through several major redevelopment areas. TriMet estimates that an additional five million square feet of development may occur over a 20-year period following completion of planned new developments. Strong regional growth is also forecast.

Other Project Justification Criteria

Mobility Improvements Rating: Medium-High		
	New Start vs. Baseline	
Transportation System User Benefit Per Passenger Mile (Minutes)	20.6	
Number of Transit Dependents Using the Project	16,200	
Transit Dependent User Benefits per Passenger Mile (Minutes)	6.4	
Environmental Benefits Rating: Medium		
Criteria Pollutant Status	**EPA Designation** Maintenance or Attainment Area for all pollutants	
Operating Efficiencies Rating: Medium		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	N/A	N/A

Local Financial Commitment Rating: Medium

The local financial commitment rating is based on the weighted average of the ratings assigned to each of the following criteria: the New Starts share of project costs is weighted 20 percent; the strength of the capital finance plan is weighted 50 percent; and the strength of the operating finance plan is weighted 30 percent.

Section 5309 New Starts Share of Total Project Costs: 50.0%
Rating: Medium

Locally Proposed Financial Plan		
Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal:		
Section 5309 New Starts	$735.86	50.0%
FHWA Flexible Funds (CMAQ / STP) – GARVEE Bonds	$72.50	4.9%
Local:		
Oregon DOT/TriMet Bonds	$280.00	19.0%
Other Local Funds	$175.40	11.9%
Oregon DOT/TriMet Debt Service	$170.00	11.6%
In Kind Contributions	$38.00	2.6%
Total:	**$1,471.76**	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

Capital Finance Plan Rating: Medium

The capital finance plan rating is based on the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

Agency Capital Condition: Medium

- The average age of the bus fleet is 10.6 years, which is older than the industry average.
- TriMet's good bond ratings, which were issued in 2007, are as follows: Moody's Investors Service Aa3 and Standard & Poor's Corporation AAA.

Commitment of Capital Funds: Medium-High

- More than 50 percent of non-New Starts funding is committed. The sources of non-Section 5309 New Starts funds for the project are Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ)-backed GARVEE bonds, revenues derived from the local sales and use tax, State and TriMet bond proceeds, in kind contributions, and other (to-be-determined) local funds.

Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low

- Assumptions regarding tax revenue growth and expense growth are optimistic compared to historical experience. In addition, the plan does not adequately address how capital cost overruns or funding shortfalls could be addressed.
- Capital cost estimates were developed using unit costs consistent with historical and current construction costs in the Portland area.

Operating Finance Plan Rating: Medium

The operating finance plan rating is based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

Agency Operating Condition: Medium-High

- TriMet's current ratio of assets to liabilities as reported in its most recent audited financial statement is 3.13.
- TriMet is in excellent financial condition, demonstrating no historical cash flow shortages and no recent service cutbacks.

Commitment of Operating and Maintenance Funding: High

- All operating funding is committed, including fare revenues, increased sales and use tax revenues, and parking revenues.

Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low

- Several operating cost estimates and revenue forecasts are optimistic relative to historical experience.
- Projected cash balances and reserve accounts are more than 12 percent (1.5 months) of annual systemwide operating expenses.

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